of repair. It may be thought that the materials are much too expensive, but the small quantities of each actually required for scagliola or plastering of walls and floors will raise it but little above the common price of cements.

The boles and earths laid on for the imitative part of the work ought to be mixed with the like material, so that it may incorporate as one with the interior coats, the pillars being carefully fashioned on the lathe, as is at present practised, or polished dry, or with the use of the liquor. Clay ought to be used as sparingly as possible, the requisite plastic quality being given to the mass by the mixture. The common scagliola of the day, as exhibited in some of the leading shops of the metropolis, deceives nobody; it is what it purports to be, a vile imitation of Nature; but nevertheless there are some fine specimens to be found in Buckingham Palace, the Pantheon in Oxford-street, in Everington's, and other buildings of the metropolis. No attempt is, however, made in the present day to extend and improve the art of imitating the precious marbles, or to ensure durability, consequently it falls into disesteem, and is rarely used.

I have mentioned in a preceding article that the Palace of Munich is built of artificial marble, the material being boiled, and the colouring added when the boiling mixture has acquired consistence. This practical application of the art might be employed to great advantage with us, chimney-pieces and vast variety of ornaments being by this means formed at so cheap a rate, and of so fine a fabric, as to supersede marble. I trust that this beautiful branch of architectural art will speedily be revived, and that no opulent householder will be without some specimen of it adorning his mansion, as pillars, pedestals, slabs, vases, baths, or other ornament. A little determination and enterprise on the part of the scagliola manufacturers, and the importation of a few first-rate Italian artists, would soon bring it into favourable notice.

H. G. M.

PROJECTED ACADEMY OF PAINTING.

The lovers of the fine arts will hear with no small pleasure that an Academy of Painting is about to be established in Bristol, under the most favourable auspices. Its object would be to foster and call forth native talent and genius in the various branches of art, and to gratify the public by periodical exhibitions of paintings. A School of Design, and prizes to reward superior merit, form also parts of the plan. The want of such an institution has long been felt in Bristol, particularly by the artists, but the sum of money required to give efficiency to the plan is so considerable, that no hopes were entertained of raising it. In fact, a spacious picture gallery, and apartments for artists to study and copy casts, designs, and pictures, form essential parts of the projected scheme. The pecuniary difficulty, the most formidable of all, is, however, removed in a considerable degree by the munificence of a lady, whose name we shall ere long have the pleasure to announce as a contributor of no less a sum than 2,000*l.* (under certain conditions) to the Academy. This splendid example will, we feel no doubt, attract numerous contributions from the public of Bristol and its neighbourhood in furtherance of the design. When we mention that P. W. S. Miles, Esq., M.P., John S. Harford, Esq., and Robert Bright, Esq., are actively promoting this truly interesting object, in conjunction with the artists of this city and neighbourhood, we are persuaded that these names will be deemed a sure guarantee of success.—*Bristol Journal.*

York and Ripon Training Schools.—The subscriptions and donations towards the erection of these buildings already amount to 2,500*l.*; but much more is needed to carry the original design into execution. It is remarked by the *Hull Packet*, that nearly half the subscribers are clergymen.

Hamburg Improvements. — We learn from the *Frankfort Journal* that Mr. Munday, the builder of Abchurch-lane, is at present constructing a sewer at the cost of 80,000*l.* through Hamburg, and employs on the work 500 Englishmen.

VENTILATION.

(From a Correspondent.)

If an architect were to build a house without windows, he would be thought a very odd sort of person, but he may shut out what is far more important than light—fresh air, and neither he nor any one else will discover any thing unusual. We are so much in the habit of looking on a building as a shelter and an ornament merely, that we do not require it to be any thing else. As to any provision being made for a due supply of fresh air, that never enters into the mind of an architect at all, or if it do, he regards it as an art and mystery which has as little to do with construction as law with physic. If fresh air should happen to be insisted on, he must needs call a professor of the science of ventilation to his aid, and he, by dint of fire or force, or both, contrives to accomplish his purpose, as many a legislator can vouch, to his cost.

Now, however, that the importance of ventilation is beginning to be understood, the best means of effecting it are being studied, and several ingenious and scientific persons are taxing their invention to repair the omissions of former architects; some by providing efficient vents for the foul air, others by giving free and safe admission for pure air.

The plans in common use for accomplishing the same object are, the revolving ventilator, the hopper, and the glass louvres.

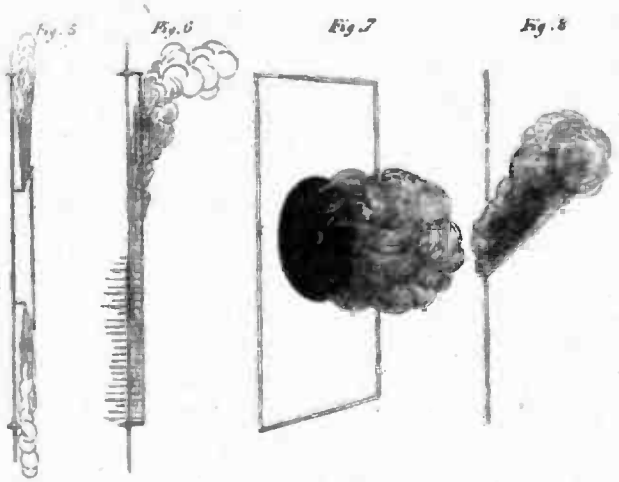
The first of these, *the revolving ventilator*, is open to every possible objection. It is noisy, dirty, ugly, and liable to get out of order; and it does not prevent a draught. When not in action it is useless, and when revolving it is a nuisance.

The *hopper* is somewhat better, but open to the serious objection, that it disfigures a building by breaking the line of the window; and that, though it modifies a draught, it does not prevent it.

The *glass louvres* are elegant in appearance, and ingenious in arrangement, but very expensive, and open to the same objection as the hopper, viz., that they only modify, but do not prevent draughts.

Indeed, it must be quite evident that no form of ventilation which causes the air to enter a room at an angle, however small, can prevent a draught; for the cold air, though its course may be altered, and it may be directed above the head, will descend again into the room before it has mixed with the warmer air of the apartment. There is but one way then in which a draught can be prevented, and that is by a shield fixed, not obliquely, but parallel to the point of admission of the air. If, in addition to this shield, a perforated plate or plates be provided, by which the current of air is broken up into a number of small streams, we have the most complete invention for preventing a draught which it is possible to imagine.

This is the principle of a mode recently invented by Dr. Guy. In place of the oblique shield, of the hopper, and louvre, he employs a parallel shield, by which means the air is distributed over the wall or window by which it gains admission, and all direct draught is effectually prevented. The aperture in the wall or window is filled by a perforated plate, which is flush with the surface of the wall or window itself, and the shield is connected with this plate through the medium of a second perforated plate and flanges.



The first of the subjoined figures (marked fig. 5) represents a section of Dr. Guy's simplest and cheapest form of ventilation, with the course of the air traced by smoke. In this figure, the dotted line represents a plate of perforated zinc bearing upon it a narrow flange. The plate is let into the centre of a pane of glass; parallel with this perforated plate is a shield of glass, joined to a second flange, fitting within the first by means of a second perforated plate, inclined at an angle to the shield and flange. The air enters through the first-mentioned perforated plate, strikes on the glass shield, and is thrown back through the second perforated plate on to the glass, along the surface of which it runs to an extent proportioned to the force with which it enters the room.

Another form, which is open to the objection that the air is thrown into the apartment instead of being confined to the line of the wall or window, is shewn in fig. 6. The remaining figures shew the course of the air as it issues through the revolving ventilator and the common hopper.

It is said that Dr. Guy's invention, besides possessing the great advantage of preventing a draught, may be made to assume a great variety of ornamental forms, so as to adapt it to any style of architecture. The parallel position of the shields evidently gives it an advantage, in this respect, over all other forms of ventilator. When the apertures in the zinc are large (as they must be in large towns, or they will soon become so clogged with dust and soot as not to allow any air to pass), and the shield is of glass, the ventilator obstructs very little light, and if kept clean, is open to no reasonable objection. Messrs. Cottam and Hallen, in whose hands Dr. Guy has placed his patent, have succeeded in introducing the ventilator securely into a pane of glass without using cross bars, so that the pane and the ventilator seem one.

If on trial Dr. Guy's invention shall be found effectually to prevent a draught, we shall congratulate him and the public on the fulfilment of a great desideratum. The prevention of a draught lies at the root of all improvement in this respect; without it, the most elegant and costly inventions are mere waste of time and money.

[We shall take an opportunity to examine this invention.—Ed.]

Proposed Method of Cleaning Statues exposed to the Air.—It has long been remarked that the stone staircase of the bronze obelisk to the memory of the Bavarians who fell in the campaign of Russia, was perfectly clear from green mould in the parts washed by the rain. M. Jobard, of Brussels, is of opinion that the oxide of the copper carried down with the rain destroys this vegetation; and recommends that a solution of copper should be tried in the cleaning of statues covered with vegetable matter.

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